

P O. Box 421  
Eureka, Utah 84628  
(801) 433-6804  
FAX (801) 433-6803

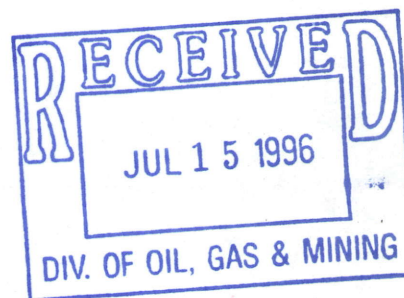
m/023/007



## North Lily Mining Company

July 11, 1996

State of Utah  
Attn: Compliance and Monitoring Program  
Division of Water Quality  
288 North 1460 West  
P.O. Box 144870  
Salt Lake City, Utah 84114-4780



RE: Second Quarter Monitoring Report 1996

Dear Compliance and Monitoring Personnel:

In compliance with Part II of the Ground Water Discharge Permit No. 23000 issued to North Lily Mining Company in May 1991, please find enclosed:

1. Pad and pond sump logs for the second quarter of 1996
2. Well water analysis for second quarter of 1996
3. Spillway sample for the second quarter 1996

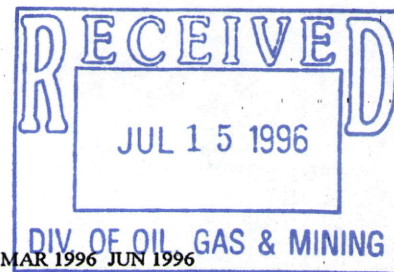
Values reported on the sump logs ie. - sodium cyanide levels are reported in parts per million, and the gallons, represent gallons in a 24 hour period.

The pad and pond sumps continue to be checked on a regular basis, but due to the reduced volume of solution in the system detectable levels are not often found. Only on days when solutions have been pumped from a sump are they recorded.

Well water sample was delivered to Chemtec, a Utah certified laboratory, on June 12, 1996 for analysis with a request that the water be analyzed per the specification required by the Division of Water Quality.

A spillway sample was taken to monitor the reduction of metals and cyanide in the solution coming off the heap leach pads. This has been done to enable North Lily to better meet and comply with state and federal water quality standards. The following table outlines the progress to date on some of the metals and cyanide (all analysis are reported in mg/l):

Page 2 Second Quarter Monitoring Report 1996



PARAMETER	*GROUND WATER QUALITY STANDARD	DETECTED IN							
		JUL 1993	DEC 1994	MAR 1995	JUN 1995	SEP 1995	DEC 1995	MAR 1996	JUN 1996
Fluoride as F	2.4	1.60	7.88	2.49	4.94	5.2	5.7	3.5	5.9
Arsenic as As	0.05	0.916	0.286	0.604	0.59	0.814	0.500	1.3	0.63
Barium as Ba	2.0	<1	0.031	0.016	0.018	0.02	<0.20	<0.05	0.02
Cadmium as Cd	0.005	<.1	<.001	<.001	<.001	<.001	<.005	<.025	<.02
Chromium as Cr	0.1	<1	<.007	<.01	<.007	<.001	<.005	<.025	0.041
Copper as Cu	1.3	1110	430	340	283	255	188	162	161
Lead as Pb	0.015	<.2	0.155	0.088	0.066	0.100	0.100	<0.04	0.14
*Mercury as Hg	0.002	0.141	0.255	0.388	0.0020	0.232	0.329	0.39	0.40
Selenium as Se	0.05	0.529	0.122	0.140	0.24	0.17	0.024	0.03	<0.02
Silver as Ag	0.05	4.41	0.061	3.61	1.8	4.24	3.43	0.56	1.32
Zinc As Zn	5.0	0.381	.661	0.093	0.500	0.19	0.20	0.08	0.30
Cyanide as CN-T	0.75	1480	579	344	256	300	*NOTE	163	149
Cyanide as CN-Wad	0.20	1264	N/R	77.6	239	291	169	153	156
Cyanide as CN- Free	N/A	512	N/R	INTER	179	*NOTE	312	*NOTE 1	263
pH	6.5 to 8.5	10.0	8.61	9.41	8.82	9.31	8.95	9.39	9.20

\* Administrative Rules For Ground Water Quality Protection - Effective Date of Last Revision - March 20, 1995

\* Digested analyzed by AWAL

\* Note: Free Cyanide test experienced matrix interference. No reported value provided.

\* Note 1: Free Cyanide analysis experienced significant interference. No value was obtained.

As the above table indicates, the solution coming from off the heap leach pads has been quite stable for the last few quarters. North Lily is pleased that there has been a significant decrease in metal and wad cyanide levels over the past few years in the solutions.

North Lily's Ground Water Quality Permit expired in May 1996. Per discussion on June 19, 1996 at a meeting held at DWQ's offices in Salt Lake City, Utah, (in attendance was Dennis Fredrick and David Rupp representing DWQ, Tom Munson representing the Division of Oil, Gas, and Mining, Alan Matthews a Director of International Mahogany Corp. representing International Mahogany Corp. as a joint venture partner in the Silver City operation, Tom Gast, Partner in EMS Company representing North Lily as an environmental specialist and Gene Webb, Vice President of North Lily and Paul Spor, General Manager representing North Lily as operator of the Silver City operation) the ground water permit will be extended, as is, with the same quarterly reporting schedule. The quarterly report will included sump checks, pH, cyanide testing, and well water analysis. The ground water permit will be modified in the closure plan.

Grading, contouring, compaction, topsoil distribution, and etc. of the heap leach pad were discussed and tentatively approved, upon submittal of documentation. Cyanide neutralization, and land base disposal of the neutralized solution were also discussed. Details and a schedule will be included in the closure plan. Some items (grading and contouring) can be started as soon as documentation can be submitted and approved by the appropriate agencies. Plans to grade and contour the heap leach pads are being prepared and will be submitted in July with an anticipated start date scheduled for August 1996. North Lily would also like to start the neutralization of the cyanide in August.



Page 3 Second Quarter Monitoring Report 1996

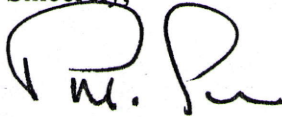
Dennis Fredrick made a site visit on June 20, 1996. He toured the plant area, ponds and pad. He took photos and was shown where, if approved, neutralized solution will be disposed of (areas both west and south of the heap leach pad).

If you have questions and/or comments, please call.

Paul C. Spor                      or  
Eureka Office  
P.O. Box 421  
Eureka, Utah 84628  
801-433-6804 Phone  
801-433-6803 Fax

Paul C. Spor  
St. George Office  
390 South 600 East  
St. George, Utah 84770  
801-634-1584 Phone/Fax/Messages

Sincerely,

A handwritten signature in black ink, appearing to read "P. C. Spor", written over a horizontal line.

Paul C. Spor  
General Manager

cc: Roger A. Foisy, Division of Water Quality  
Wayne Hedberg, Division of Oil, Gas, and Mining

## SUMP LOG

DATE	SUMP	POND LEVEL	TIME	AU	AG	pH	NaCN	GALLONS	NAME
4/5/96	Preg	32	1500		1.3	8.5	.000	2.0	Johnny
	Barren	24	"			9.5	.010	4.0	"
	Overflow	4	"			8.1	.000	4.0	"
	#1	-	"			8.1	.000	1.0	"
	#2	-	"			8.1	.000	1.0	"
4/12	Preg	31.5	1300			8.5	.001	2.0	Elwin
	Barren	24	"			9.0	.009	3.0	"
	Overflow	4	"			8.1	.000	2.0	"
	#1	-	"			8.0	.000	0.5	"
	#2	-	"			7.9	.000	0.5	"
4/18	Preg	32	1300			8.2	.000	2.5	Troy
	Barren	24	"			9.3	.007	5.0	"
	Overflow	4	"			8.0	.000	5.0	"
	#1	-	"			8.0	.000	1.0	"
	#2	-	"			8.0	.000	0.5	"
4/25	Preg	32	1000			8.9	.000	1.5	Elwin
	Barren	24	"			9.1	.009	1.5	"
	Overflow	4	"			8.0	.000	0.5	"
	#1	-	"			8.0	.000	0.5	"
	#2	-	"			8.0	.000	0.5	"
5/1	Preg	30	0800			8.9	.000	3.0	Danald
	Barren	24	"			8.6	.010	5.0	"
	Overflow	4	"			8.0	.000	5.0	"
	#1	-	"			8.1	.000	1.0	"
	#2	-	"			8.1	.000	1.0	"
5/6	Preg	28	0900			8.2	.000	2.5	Troy
	Barren	24	"			8.7	.008	3.5	"
	Overflow	4	"			7.8	.000	3.5	"
	#1	-	"			8.1	.000	0.5	"
	#2	-	"			8.1	.000	0.5	"
5/16	Preg	28	0600			8.2	.000	3.0	Troy
	Barren	24	"			8.6	.009	3.5	"
	Overflow	4	"			8.0	.000	2.0	"
	#1	-	"			8.0	.000	0.5	"
	#2	-	"			8.0	.000	0.5	"



## SUMP LOG

DATE	SUMP	POND LEVEL	TIME	AU	AG	pH	NaCN	GALLONS	NAME
5/23/96	Preg	28	1300		1.3	8.1	.006	3.0	Elwin
	Barren	24	"			9.0	.009	3.0	"
	Overflow	3	"			8.2	.000	3.0	"
	#1	-	"			8.1	.000	1.0	"
	#2	-	"			8.1	.000	1.0	"
5/31	Preg	29	1000			8.0	.006	3.0	Donald
	Barren	24	"			8.9	.010	4.0	"
	Overflow	3	"			8.1	.000	4.0	"
	#1	-	"			8.0	.000	0.5	"
	#2	-	"			8.0	.000	0.5	"
6/6	Preg	28	1050			8.7	.006	4.0	Johnny
	Barren	24	"			9.3	.002	3.0	"
	Overflow	3	"			8.2	.000	3.5	"
	#1	-	"			8.2	.000	0.5	"
	#2	-	"			8.2	.000	0.5	"
6/15	Preg	27				8.1	.006	3.0	Donald
	Barren	23				9.0	.010	3.0	"
	Overflow	3				8.0	.000	3.0	"
	#1	-				7.9	.000	1.0	"
	#2	-				7.9	.000	1.0	"
6/18	Preg	29				8.3	.000	6.0	Johnny
	Barren	24				8.5	.012	3.0	"
	Overflow	3				8.3	.000	4.0	"
	#1	-				8.2	.000	1.0	"
	#2	-				8.2	.000	0.5	"
6/22	Preg	29	1000			8.1	.000	10.0	Donald
	Barren	24	"			9.2	.008	<del>5.5</del> 4.5	"
	Overflow	3	"			8.2	.000	6.0	"
	#1	-	"			8.0	.000	1.0	"
	#2	-	"			8.0	.000	0.5	"
6/26	Preg	29	1000			8.1	.000	5.0	Troy
	Barren	24	"			8.8	.007	2.0	"
	Overflow	4	"			8.0	.000	5.0	"
	#1	-	"			8.0	.000	0.5	"
	#2	-	"			8.0	.000	1.0	"
6/30	Preg	27	1100			8.1	.000	9.0	Johnny
	Barren	23	"			8.8	.007	4.5	"
	Overflow	4	"			8.0	.000	6.5	"
	#1	-	"			8.2	.000	1.0	"
	#2	-	"			8.1	.000	1.0	"

07/19/96

10:57

CHEMTECH + 1-801-634-1584

110.027

F02

CHEMTECH-FORD

ANALYTICAL LABORATORIES

To: North Lily Mining Company

Date: 7/ 9/96

P.O. Box 421  
Eureka, UT 84628

Group #: 8855

Lab #: 96-U007961

Sample Desc: Well Storage Inlet

Date Sampled: 6/12/96

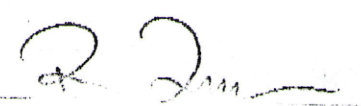
Date Submitted: 6/12/96

Time Sampled: 8:50

Time Received: 11:10

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO <sub>3</sub> , mg/L	141	1	6/21/96 9:35	SM 2320B	TH
Carbonate as CO <sub>3</sub> , mg/L	< 1	1	6/21/96 9:35	SM 2320B	TH
Alkalinity, Solids, mg/L	69	1	6/21/96 9:35	SM 2320B	TH
Hydroxide as OH, mg/L	< 1	1	6/21/96 9:35	SM 2320B	TH
Alkalinity, Total, mg/L	115	1	6/21/96 9:35	SM 2320B	TH
Carbon Dioxide, mg/L	103	1	6/21/96 9:35	SM 2320B	TH
Chloride, mg/L	144	2	6/19/96 10:30	SM 4500 D	TH
Conductance, Specific, umhos/cm	875	0.1	6/20/96 15:45	EPA 325.3	TM
Cyanide (T), mg/L	< 0.002	0.002	6/25/96 12:30	EPA 120.1	DI
Fluoride, mg/L	0.2	0.1	6/23/96 11:15	ASTM D2036	DI
Hardness, EDTA Titration, mg/L	290	12	6/13/96 11:00	EPA 340.2	DI
Mercury (T), as Hg, mg/L	< 0.0002	0.0002	6/17/96 15:10	EPA 130.2	TM
Nitrite, Nitrogen, mg/L	< 0.005	0.005	6/12/96 18:00	EPA 245.1	KA
Nitrate/Nitrite-Nitrogen, mg/L	1.04	0.04	6/20/96 14:00	EPA 354.1	KA
pH, units	7.90	0.05	6/12/96 1:50	EPA 353.1	JBK
Phosphorus, Ortho, mg/L	0.02	0.01	6/12/96 18:15	EPA 150.1	LS
Sulfate, mg/L	101	20	6/18/96 14:30	SM 4500	KA
Total Dissolved Solids, mg/L	564	5	6/19/96 4:00	EPA 375.4	TM
Total Suspended Solids, mg/L	< 2.5	2.5	6/12/96 1:55	EPA 160.1	MO
Turbidity, NTU	0.44	0.05	6/12/96 13:45	EPA 160.2	LS
Barium (T), as Ba, mg/L	0.071	0.002	6/26/96 10:20	EPA 180.1	LS
Beryllium (T), as Be, mg/L	< 0.0002	0.0002	6/26/96 10:20	EPA 200.7	MA
			6/26/96 10:20	EPA 200.7	MA

Approved By: 



07/10/96

10:58

CHEMTECH → 1+801+634+1584

NO. 097 003

ANALYTICAL LABORATORIES

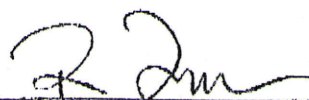
To: North Lily Mining Company

Date: 7/9/96

P.O. Box 421  
Eureka, UT 84628Group #: 8855  
Lab #: 96-U007961  
Sample Desc: Well Storage InletDate Sampled: 6/12/96  
Date Submitted: 6/12/96Time Sampled: 8:50  
Time Received: 11:10

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Cadmium (T), as Cd, mg/L	< 0.001	0.001	6/26/96 10:20	EPA 200.7	MA
Calcium (T), as Ca, mg/L	56.9	0.02	6/26/96 10:20	EPA 200.7	MA
Chromium (T), as Cr, mg/L	< 0.001	0.001	6/26/96 10:20	EPA 200.7	MA
Copper (T), as Cu, mg/L	0.005	0.002	6/26/96 10:20	EPA 200.7	MA
Iron (T), as Fe, mg/L	0.036	0.005	6/26/96 10:20	EPA 200.7	MA
Lead (T), as Pb, mg/L	< 0.01	0.01	6/26/96 10:20	EPA 200.7	MA
Magnesium (T), as Mg, mg/L	32.4	0.02	6/26/96 10:20	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.003	0.002	6/26/96 10:20	EPA 200.7	MA
Nickel (T), as Ni, mg/L	< 0.002	0.002	6/26/96 10:20	EPA 200.7	MA
Potassium (T), as K, mg/L	3.51	0.02	6/26/96 10:20	EPA 200.7	MA
Silver (T), as Ag, mg/L	< 0.002	0.002	6/26/96 10:20	EPA 200.7	MA
Sodium (T), as Na, mg/L	59.3	0.02	6/26/96 10:20	EPA 200.7	MA
Zinc (T), as Zn, mg/L	0.054	0.002	6/26/96 10:20	EPA 200.7	MA
Antimony (T), as Sb, mg/L	< 0.003	0.003	6/27/96 19:41	EPA 200.9	EG
Arsenic (T), as As, mg/L	0.006	0.005	6/29/96 16:52	EPA 200.9	EG
Selenium (T), as Se, mg/L	0.002	0.002	6/26/96 21:45	EPA 200.9	EG
Thallium (T), as Tl, mg/L	< 0.001	0.001	7/6/96 11:15	EPA 200.9	LH
Cation,	8.18				
Anion,	8.50				
% Difference,	1.96				
Receiving Temperature, C	21	0	6/12/96 11:10		RCG

Approved By: 

6100 SOUTH STATION

07-10/96

10:59

CHEMTECH → 1+801+634+1594

110.007 - 001

CHEMTECH-FORD

ANALYTICAL LABORATORIES

Date: 7/ 9/96

To: North Lily Mining Company

P.O. Box 421  
Eureka, UT 84628

Group #: 8855

Lab #: 96-U007961

Sample Desc: Well Storage Inlet

Date Sampled: 6/12/96  
Date Submitted: 6/12/96

Time Sampled: 8:50  
Time Received: 11:10

### CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					

NOTE: Sample submitted not on ice.



07/10/96

10:59

CHEMTECH → 1+801+634+1584

NO. 097

005

CHEMTECH FORD

ANALYTICAL LABORATORIES

To: North Lily Mining Company

Date: 7/ 8/96

P.O. Box 421  
Eureka, UT 84628

Group #: 8855

Lab #: 96-U007962

Sample Desc: Spillway Sample

Date Sampled: 6/12/96

Date Submitted: 6/12/96

Time Sampled: 8:30

Time Received: 11:10

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO <sub>3</sub> , mg/L	253	1	6/24/96 11:30	SM 2320B	TH
Carbonate as CO <sub>3</sub> , mg/L	125	1	6/24/96 11:30	SM 2320B	TH
Alkalinity, Solids, mg/L	249	1	6/24/96 11:30	SM 2320B	TH
Hydroxide as OH, mg/L	< 1	1	6/24/96 11:30	SM 2320B	TH
Alkalinity, Total, mg/L	415	1	6/24/96 11:30	SM 2320B	TH
Carbon Dioxide, mg/L	274	1	6/24/96 11:30	SM 4500 D	TH
Chloride, mg/L	2,620	10	6/19/96 10:30	EPA 325.3	TM
Conductance, Specific, umhos/cm	23,900	0.1	6/20/96 15:45	EPA 120.1	DI
Cyanide, Free, mg/L	263	10	6/26/96 3:30	ASTM D2036	DI
Cyanide (T), mg/L	149	8	6/25/96 12:30	ASTM D2036	DI
Cyanide, WAD, mg/L	156	0.002	7/ 1/96 16:00	ASTM D2036	TH
Fluoride, mg/L	5.9	0.5	6/23/96 11:15	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	1,200	250	6/13/96 11:00	EPA 130.2	TM
Mercury (T), as Hg, mg/L	0.40	0.04	6/18/96 10:45	EPA 245.1	KA
Nitrite, Nitrogen, mg/L	0.22	0.062	6/12/96 18:00	EPA 354.1	KA
Nitrate/Nitrite-Nitrogen, mg/L	9.5	0.8	6/26/96 11:00	EPA 353.1	JBK
pH, units	9.20	0.05	6/12/96 1:50	EPA 150.1	LS
Phosphorus, Ortho, mg/L	0.10	0.01	6/12/96 18:15	SM 4500	KA
Sulfate, mg/L	10,000	2000	6/18/96 14:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	18,900	50	6/19/96 4:00	EPA 160.1	MO
Total Suspended Solids, mg/L	7	2.5	6/12/96 1:55	EPA 160.2	LS
Turbidity, NTU	0.93	0.05	6/12/96 13:45	EPA 180.1	LS

Approved By:



07/10/96

11:00

CHEMTECH → 1+801+634+1584

NO. 097

006

ANALYTICAL LABORATORIES

To: North Lily Mining Company

Date: 7/9/96

P.O. Box 421  
Eureka, UT 84628

Group #: 8955

Lab #: 96 0007962

Sample Desc: Spillway Sample

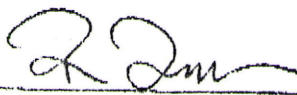
Date Sampled: 6/12/96

Date Submitted: 6/12/96

Time Sampled: 8:30  
Time Received: 11:10

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Barium (T), as Ba, mg/L	0.02	0.01	6/19/96 11:33	EPA 200.7	MA
Beryllium (T), as Be, mg/L	< 0.001	0.001	6/19/96 11:33	EPA 200.7	MA
Cadmium (T), as Cd, mg/L	< 0.02	0.02	6/19/96 11:33	EPA 200.7	MA
Calcium (T), as Ca, mg/L	413	0.1	6/19/96 11:33	EPA 200.7	MA
Chromium (T), as Cr, mg/L	0.041	0.005	6/19/96 11:33	EPA 200.7	MA
Copper (T), as Cu, mg/L	151	0.01	6/19/96 11:33	EPA 200.7	MA
Iron (T), as Fe, mg/L	0.06	0.02	6/19/96 11:33	EPA 200.7	MA
Lead (T), as Pb, mg/L	0.14	0.04	6/19/96 11:33	EPA 200.7	MA
Magnesium (T), as Mg, mg/L	4.8	0.1	6/19/96 11:33	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.04	0.01	6/19/96 11:33	EPA 200.7	MA
Nickel (T), as Ni, mg/L	0.77	0.01	6/19/96 11:33	EPA 200.7	MA
Potassium (T), as K, mg/L	281	0.1	6/20/96 9:26	EPA 200.7	MA
Silver (T), as Ag, mg/L	1.32	0.005	6/19/96 11:33	EPA 200.7	MA
Sodium (T), as Na, mg/L	6,010	0.1	6/19/96 11:33	EPA 200.7	MA
Zinc (T), as Zn, mg/L	0.30	0.01	6/19/96 11:33	EPA 200.7	MA
Antimony (T), as Sb, mg/L	< 0.03	0.03	6/27/96 19:41	EPA 200.9	EG
Arsenic (T), as As, mg/L	0.63	0.05	7/ 2/96 15:06	EPA 200.9	EG
Selenium (T), as Se, mg/L	< 0.02	0.02	7/ 1/96 18:28	EPA 200.9	EG
Thallium (T), as Tl, mg/L	0.04	0.01	7/ 8/96 17:59	EPA 200.9	EG
Cation,	290				
Anion,	291				
% Difference,	0.22				

Approved By: 



07/10/96

11:01

CHEMTECH + 1+801+634+1584

NO. 097

D07

CHEMTECH-FORD

ANALYTICAL LABORATORIES

Date: 7/9/96

To: North Lily Mining Company

P.O. Box 421  
Eureka, UT 84628

Group #: 8855

Lab #: 86 U007962

Sample Desc: Spillway Sample

Date Sampled: 6/12/96

Date Submitted: 6/12/96

Time Sampled: 8:30

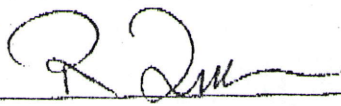
Time Received: 11:10

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	21	0	6/12/96 11:10		RCG

NOTE: Sample submitted not on ice.

Cd detection limit raised due to interferences.

Approved By: 

6100 SOUTH STRATLER